

## **Master of Science in Human Genetics and Genetic Counseling Curriculum for 2014-15**

### **First year, Autumn (Full Time >11 units)**

DBIO 201 Development and Disease Mechanisms, 4 units (Kim, Kingsley, Porzig, Scott)

MED 255C Responsible Conduct of Research, 1 unit (SCBE Staff)

GENE 271 Human Molecular Genetics, 4 units (Hanson-Kahn)

GENE 272 Introduction to Medical Genetics, 2 units (Ormond and Hudgins)

GENE 273 Introduction to Clinical Genetics Testing, 1 unit (Hanson-Kahn and Ormond)

GENE 275 Role Play and Genetic Counseling Observations, 2 units (Hanson-Kahn/Ormond/Chen/Siskind/Taylor/)

GENE 284 Medical Genetics Seminar, 2 units (Hanson-Kahn)

GENE 285A Genetic Counseling Seminar, 2 units (Ormond)

**Total units: 18**

### **First year, Winter (Full Time >11 units)**

GENE 274A A Case Based Approach to Clinical Genetics I, 2 units (Hudgins/Hanson-Kahn)

GENE 276, Clinical Rotations, 5 units (Hanson-Kahn/Ormond)

GENE 278 or 279 or 280 or 281 (select one; tutorial for rotation), 1-4 unit (online courses)

GENE 282 Research Seminar, 1 unit (Ormond)

GENE 284 Medical Genetics Seminar, 2 units (Hanson-Kahn)

GENE 285B Genetic Counseling Seminar, 2 units (Ormond)

(GENE 299 Directed readings, 1-4 units (staff); to bring total to 18 units)

Optional elective, 3-5 units (Faculty outside of the department)

**Total units:**

**12 + online courses, directed readings, and research electives to total 18 units**

(Note: if students register for >18 units, extra tuition fees may apply)

### **First year, Spring (Full Time >11 units)**

HumBio 174 Foundations in Biomedical Ethics, 3 units (Magnus)

GENE 274B A Case Based Approach to Clinical Genetics II, 2 units (Hudgins/Ormond)

GENE 276, Clinical Rotations, 5 units (Hanson-Kahn/Ormond)

GENE 278 or 279 or 280 or 281 (select one; tutorial for rotation), 1-3 unit (online courses)

GENE 282 Research Seminar, 1 unit (Ormond)

GENE 284 Medical Genetics Seminar, 2 units (Hanson-Kahn)

GENE 285C Genetic Counseling Seminar, 2 units (Ormond)

**Total units – 15 + online courses, directed readings and research electives to total 18 units**

(Note: if students register for >18 units, extra tuition fees may apply)

### **First year, Summer**

Students will complete clinical rotations on a full time (~40 hour/week) basis, and work on their research projects. Students will not sign up for any academic credits during this time.

**Second year, Autumn (Full time 8-10 units)**

GENE 278, 279 or 280 or 281 (any remaining not completed online courses), 1-2 units

GENE 283 (research), 1-5 units, staff **OR** Elective, 3-5 units

GENE 284 Medical Genetics Seminar, 2 units (Hanson-Kahn)

GENE 286A Advanced Genetic Counseling conference, 2 units (Ormond and Hanson-Kahn)

Use some combination of the GENE 283 and Elective to make up the remaining 5-6 units:

*Note: students will also complete research projects and clinical rotations during this quarter, but will not register for them.*

**Total units 5 + 3-5 in electives (to total exactly 10 without extra fees)**

**Second year, Winter (Full time 8-10 units)**

GENE 283 (research), 1-5 units, staff **OR** Elective, 3-5 units

GENE 284 Medical Genetics Seminar, 2 units (Hanson-Kahn)

GENE 286B Advanced Genetic Counseling Conference, 2 units (Ormond and Hanson-Kahn)

Use some combination of the GENE 283 and Elective to make up the remaining 6 units:

*Note: students will also complete research projects and clinical rotations during this quarter, but will not register for them.*

**Total units 5 + 3-5 in electives (to total exactly 10 without extra fees)**

**Second year, Spring (Full time 8-10 units)**

GENE 283 (research), 1-5 units, staff **OR** Elective, 3-5 units

GENE 284 Medical Genetics Seminar, 2 units (Hanson-Kahn)

GENE 286C Advanced Genetic Counseling Conference, 2 units (Ormond and Hanson-Kahn)

Use some combination of the GENE 283 and Elective to make up the remaining 6 units:

*Note: students will also complete research projects and clinical rotations during this quarter, but will not register for them.*

**Total units 6 + 3-5 in electives (to total exactly 10 without extra fees)**

**Total Units: 84**

***Note: GENE 278, 279, 280, 281 and 287 are online courses in prenatal, pediatrics, metabolic, cancer, and cardio-genetics that will be taken concurrently with the relevant clinical rotations.***

Given the rigorous curriculum listed, students should expect that classes and clinical rotations will fill their days during regular business hours (typically 8:30-5pm, with some exceptions of required classes going until 6pm). Infrequently, required events will be scheduled on weekends or into the evenings, generally with significant advance notice.

**\*\*Students should take one elective or more during their second year. As described elsewhere, at least one general elective and one research elective should be taken to complete the program**